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IMAGES IN CARDIOLOGY

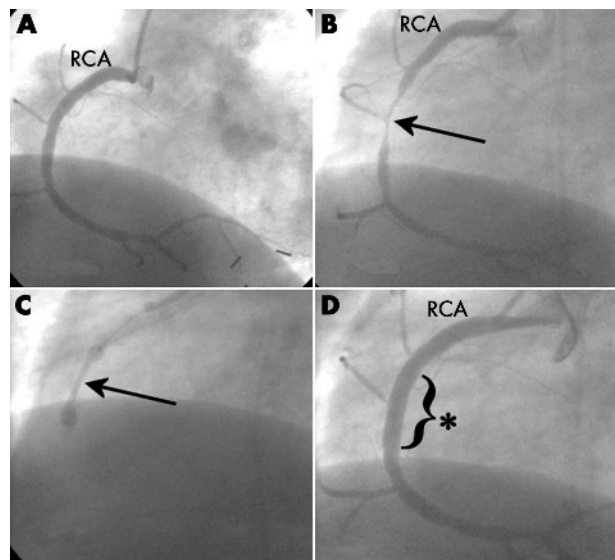
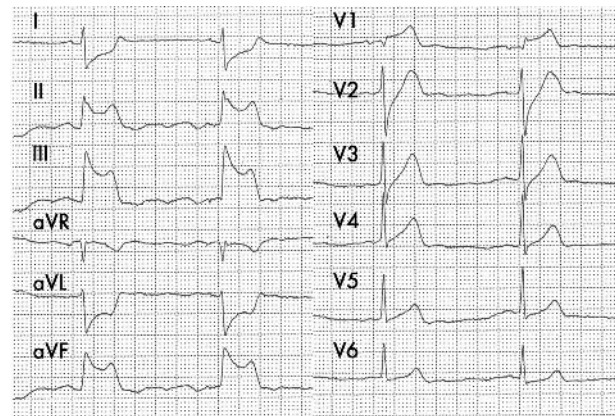
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Angiographic documented dobutamine induced coronary spasm successfully treated by stenting

A 66-year-old diabetic and hypertensive patient receiving chronic calcium channel antagonist (CCA) treatment presented with unstable angina caused by single vessel coronary artery disease (CAD), which was successfully treated by direct stenting of the proximal left anterior descending artery (LAD).

Two days after hospital discharge the patient had typical angina with two episodes of syncope. At the emergency department an inferior myocardial infarction was evident upon ECG (upper panel). Coronary angiography showed patency of the LAD stent and no significant lesion on the right coronary artery (RCA) (lower panel A). In order to assess the possibility of RCA vasospasm we performed an intravenous dobutamine stress test which resulted in a significant mid RCA spasm (lower panel B). The spasm persisted despite stopping the dobutamine perfusion and instituting intracoronary nitrate injection. In view of this life threatening RCA spasm refractory to intracoronary nitrates and oral CCA, we decided to treat the culprit lesion by stent implantation (lower panels C and D) with favourable early and late outcomes.

Dobutamine induced coronary spasm is often suspected after stress echocardiography but has only occasionally been reported at angiography. Our case suggests that in the presence of underlying CAD, variant angina may be a challenging problem. Medical treatment (nitrates or CCA) should be attempted in such cases, but if symptoms persist coronary stenting seems to be the rational option. Spasm may occur everywhere in the vessel, therefore in patients suspected of having medical refractory variant angina, provocation tests should always be performed before stenting, in order to identify and treat the culprit spasmodic segment only.



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